

REMARKS

Favorable reconsideration and allowance of the claims of the present application, as amended, is respectfully requested.

In the present Office Action, the Examiner rejected Claims 1-2, 7-9, 11-13, 17-19, 21-23, 28-30, 32 and 57 under 35 U.S.C. §102(b) as allegedly being anticipated by Yahoo Screen Pages (dated 10/05/99) pp.1-5, <http://web.archive.org/web/19991005031700/http://dir.yahoo.com/Arts/Artists/Masters/Directories/> ("Yahoo") in view of Bates (US Patent No. 6,557,015) ("Bates").

The Examiner further finally rejected Claims 33-34, 37-42, 45-50, 53-56 and 58 under 35 U.S.C. §103(a) as allegedly being unpatentable over Yahoo in view of Bates and in further view of US Patent No. 5,806,077 to Wecker ("Wecker").

The Examiner further finally rejected Claims 3-4, 10, 14-15, 20, 24-25 and 31 under 35 U.S.C. §103(a) as allegedly being unpatentable over Yahoo in view of Bates and in further view of a reference entitled "Privacy Compliance Resources, "Cookies" (dated 2/11/01), pp. 1, http://web.archive.org/web/20010210192514/http://www.idcide.com/pages/res_term.htm (hereinafter "Cookies").

The Examiner further finally rejected Claims 35, 43 and 51 under 35 U.S.C. §103(a) as allegedly being unpatentable over Yahoo in view of Bates and in further view of Cookies and further in view of Wecker.

With respect to the rejection of independent Claims 1, 12 and 22, 33, 41, 49 and 57 as being anticipated by Yahoo in view of Bates, applicants respectfully

disagree in view of the clarifying amendments made to each of these claims.

As a preliminary matter, applicants amend each of independent claims 1, 12 and 22, 33, 41 and 49 to eliminate and conceivable confusion or differences in terminology: for instance, as it appears the term breadcrumbing engine is being interpreted by the Examiner as the breadcrumb trail itself. In fact, as now set forth in amended independent Claims 1, 12 and 22, 33, 41 and 49, the breadcrumb engine is a browser script (e.g., javascript code) that is downloaded to the client to programatically generate the breadcrumb trail. Furthermore, with respect to generating breadcrumbs at the client, it appears that the Examiner is interpreting the Yahoo breadcrumbs in their web page as being generated on the client. However, Yahoos "breadcrumbs" are displayed/rendered to the client from HTML sent from the server. By generated "at the client" means to programatically generated on the client breadcrumb HTML that does not come from the server. Moreover, the use of the term "breadcrumbs" itself, it appears that the cited "Cookies" references uses the term breadcrumb to refer to any info saved about a visited URL, when in fact, it is intended to refer to the display of the URL on the web page itself. Thus, each of independent claims 1, 12 and 22, 33, 41, 49, 57 and 58 are being amended to clarify that the generated breadcrumb includes navigation information comprising a URL and further, that the generated breadcrumb navigation trail comprises URLs associated with the web pages visited within the Website. Respectfully, no new matter is being entered.

Each of independent claims 1, 12 and 22, 33, 41, 49 and 57 are further being amended to clarify the inventive Web site navigation trail breadcrumbing solution that addresses the deficiencies of "hard-coded" breadcrumbing methods where the

breadcrumbs (i.e., HTML links) may not accurately reflect correct order, link name and associated web pages for the navigation structure through the information space of a Website. That is, in order to correctly reflect the user's navigation through the Website's information space, breadcrumbs must be generated, maintained and updated as the Website changes, i.e., changes occurring in the web page organization including renaming, deleting, adding and moving web pages within the Website. A deficiency of the server-side breadcrumbing according to the prior art is that such an implementation places an inordinate load on the server in terms of execution time and storage space required to satisfy all user requests for web pages utilizing breadcrumbs.

Thus, the present invention as claimed in amended Claims 1, 12, 22, 33, 41, 49, 57 and 58 includes new limitation setting forth the functionality (e.g., see specification Tables 2-4) of implementing browser script that programmatically generates, storing and dynamically updating, at the client, the stored breadcrumbs with the generated breadcrumb to form a breadcrumb navigation trail of breadcrumbs associated with navigation of the web pages visited at the Website without downloading from said web server any information describing a web page's location in a web site hierarchy. Moreover, each of the Claims 1, 12, 22, 33, 41, 49, 57 and 58 have been amended to include a new limitation setting forth that the displayed breadcrumb navigation trail reflects a correct order of a user's navigation through an information space of the Website, which Yahoo does not teach or suggest.

It is respectfully requested that this amendment does not constitute new matter or raise new issues as the claims of the invention are directed to a client-side breadcrumbing solution, pure and simple, and further set forth limiting features for

clarification purposes. For example, support of the limitations added to Claims 1, 12, 22 and 57, can be found in the methodology depicted in Figure 2 (and code depicted in Table 2) of the specification and at line 7, page 10 to line 6, page 11, where it is described how a function call `update_breadcrumb_navigation_trail()`, executed at the client, includes arguments including `document.forms[0].bctitle.value` and `document.location` that generates the breadcrumb in the breadcrumb navigation trail. Respectfully, this is performed without downloading from the web server any information describing a web page's location in a web site hierarchy. Clearly, this is exemplified by the Table 2 code found on pages 12-13 and in Figure 2, step 212, for instance, where it is described how, in response to navigating to a specific web page, breadcrumbs are deleted if the breadcrumb associated with the current navigated to web page is not in the information retrieved from a breadcrumb "cookie".

Applicants respectfully submit that the cited and applied "Yahoo" reference does not teach or suggest a breadcrumbing solution being performed entirely on the client side as in the present invention. The Yahoo reference that allegedly teaches that the breadcrumbs reflect the pages visited is not entirely true. If someone visits the Yahoo URL for a page somewhere along in the hierarchy, the yahoo page will STILL show breadcrumbs for the previous pages a user **could** have visited to get there, regardless of whether the user actually visited those pages. So the Yahoo breadcrumbs represent the rigid hierarchy of the structure of their website, not truly the dynamic way in which that user could have gotten to a specific page. Additionally, the yahoo breadcrumbs are delivered as part of the HTML that is delivered to the client browser, they are not generated (programmatically or otherwise) on the client browser via javascript

(or any other means) as the applicants can tell. They are displayed/"rendered" from the server, not generated on the client.

Thus, the Yahoo reference shows how mere hardcoded HTML downloaded from the web server could generate navigation links. The hardcoded HTML would have to be maintained by hand by the web page provider and updated to reflect changes in the web page hierarchy any time that hierarchy changed.

Respectfully, the Bates reference is of no help in this regard. While the Bates reference does show saving information on visited URLs in a linked list, Bates appears to be documenting it as part of the user interface of the web browser itself, as evidenced by the provision of color coded trail control panel 232 as shown in Figure 12 of Bates that is provisioned with color button controls for enabling navigating to URLs as maintained by Bates in a linked list structure. These color coded buttons indicating an active "trail" are not "breadcrumbs" as defined in the present invention. Moreover, the mechanism described in Bates is contrary to the present invention as claimed where visited URL information is delivered in the actual web page itself. That is, it appears that Bates requires maintenance of a bookmark "trail" of URLs within the client browser software itself, and does not dynamically update the stored breadcrumbs by executing a browser script embedded within the web page itself as in the present invention. The present invention thus allows a web site content developer to choose where and how the breadcrumbs are displayed, whereas Bates' information is dependent on the browser UI implementation for how/where displayed.

For these reasons, the Examiner is respectfully requested to withdraw the rejection of amended independent Claims 1, 12, 22, 33, 41, 49, 57 and 58 and all claims

While the Examiner further mentions the Lee Underwood reference (on page 13 of the Office Action) as being pertinent, that reference describes how to create breadcrumbs using cookies, but requires having to place data into each web page (page level, name, URL) so that the javascript knows how to display that page in the breadcrumb. This means as the web site page hierarchy changes, this information must be updated/maintained in each web page. Also, if a web page can be navigated to from different places, and can be at different hierarchical levels, Underwood's documented example cannot handle that as there is only a level defined for a given page. Thus, Claims 1, 12, 22, 33, 41, 49, 57 and 58 are being further amended to set forth that the breadcrumb navigation trail of URLs associated with the web pages visited at the Website is performed without downloading from said web server any information describing a web page's location in a web site hierarchy or maintaining web page relationships in the web pages themselves.

In sum, the present invention as now claimed in amended Claims 1, 12, 22, 33, 41, 49, 57 and 58 describe systems and methods for using a browser script (javascript) on the client browser to programatically generate into the rendered web page a "breadcrumb" list of pages (URLs) visited without the need to define/maintain web page relationships/hierarchy in the web pages themselves (thus allowing individual pages to display in multiple hierarchial relationships).

In view of the foregoing amendments and remarks, this application is now believed to be in condition for allowance, and a Notice of Allowance is respectfully requested. If the Examiner believes a telephone conference might expedite prosecution of this case, it is respectfully requested that he call applicant's attorney at (516)742-4343.

Respectfully submitted,



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